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EXAMINER	
MESFIN, YEMANE	
ART UNIT	PAPER NUMBER
2444	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/660,303	STEWART ET AL.	
	Examiner	Art Unit	
	Yemane Mesfin	2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Appeal Brief Filed 08/04/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37 and 39-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37 and 39-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Reopening Prosecution

1. In view of the Appeal Brief filed on 08/04/2008, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444.

2. Claims 1-37 and 39-53 remain pending in this application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 17-19, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goringe et al (U.S. Patent Number 7,069,343) in view of Dowling (US Patent Number 6,636,499).

As per claim 17: Goringe disclosed a network device (Fig. 3) comprising: a first data structure to store routing information that describes a topology of a network; (first MIB storing therein discovered network topology, see Column 5, Line 9 through Column 6, Line 51 and Column 13, Lines 1-10) a second data structure to store performance community information that identifies one or more network devices that are capable of responding to performance probes used to monitor the network (Column 6, Lines 4-35, link-state database, storing link-state information including list of routers discovered during the discovery process and Goringe further disclosed (in Column 13, Lines 3-10, Figs. 18-21 and Column 9, Line 64 through Column 10, Line 60), a table (data structure) constructed based on the communication devices determined to support performance monitoring including therein routing information of all discovered communication devices using the routing protocols and see Beigi, Abstract, Fig. 2 # 217, Fig. 4 # 405 →409, Fig. 8, # 805→809, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8)); and a routing communication manager that receives a routing communication that that identifies at least one route within a network and an indicator that indicates that indicates that a network device that sent the routing information is capable of responding to performance probes used to monitor the network, (agents # 308, 310 # 316 of Fig. 3, Fig. 23 # 2400-2412 and Column 3, Lines 19-46, topology discovery using a routing information defined by a routing protocols), updates the routing information of the first data structure to include the route identified in the routing communication

and updates the performance community information of the second data structure to include the network device that sent the routing communication as one of the network devices capable of responding to performance probes (Column 13, Lines 3-10, Figs. 18-21 and Column 9, Line 64 through Column 10, Line 60, table (data structure) constructed based on the communication devices determined to support performance monitoring including therein routing information of all discovered communication devices using the routing protocols).

Goringe substantially disclosed the invention as claimed. However, Goringe does not explicitly teach the routing information to include an indicator that indicates that a network device that sent the routing information is capable of responding to performance probes used to monitor the network.

However, in the same field of invention, Dowling disclosed plurality of network devices (routers) performing a discovery mechanism and during the discovery scheme each device transmitting information identifying it's capability to all neighboring network devices that are connected to the network of devices; each device storing the capability information of other device on the network (see Abstract, Column 6, Line 66 through Column 7, Line 18) and based on exchanged capability of the devices (see Fig. 6, Column 8, Line 50 through Column 9, Line 15 and Column 11, Lines 9-17). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Dowling related to broadcasting capability information of network devices and have modified the teachings of Goringe in order to enable an automatic discovery of network devices and facilitate network management (see Column 6, Lines 50-64).

As per claim 18: The already combined teachings of Dowling and Goringe further disclosed that the routing communication manager generates an outbound routing communication in accordance with the routing protocol, and sends the outbound routing communication to the network device identified in the data structure via a routing communication protocol, wherein the outbound routing communication identifies the sending network device as a supporter of performance monitoring (Dowling Column 8, Lines 3-24 and Goringe Figs. & 23, Column 3, Line 19 through Column 4, Lines 17, Network monitorable devices discovered/identified via a discovery agent or manager).

As per claim 19: The already combined teachings of Dowling and Goringe further disclosed wherein the outbound routing communication includes an identifier associated with the sending network device and an indicator that indicates the sending network device is capable of supporting performance monitoring (Dowling Column 8, Lines 3-50, Column 11, Lines 9-17; and Goringe Column 3, Lines 19-46 and Column 5, Lines 9-64).

As per claim 33: The already combined teachings of Dowling and Goringe further disclosed wherein the network performance statistics include at least one of network delay, network jitter, network throughput, network availability and network packet loss (Goringe Column 1, Line 46 through Column 2, Line 45, Goringe addressed plurality of network performance monitoring applications including OpenView ™, Netview ™ and other applications which actually are mainly used to collect performance statistics to determine multiple network related problems over a monitored communication network).

As per claim 34: The already combined teachings of Dowling and Goringe that the routing protocol comprises one of Border Gateway Protocol (BGP), Open Shortest Path First (OSPF),

Intermediate System - Intermediate System (ISIS), and Routing Information Protocol (RIP) (See Goringe Column 14, Lines 41-46).

5. Claims 1-16, 20-32, 35-37 and 39-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goringe et al (U.S. Patent Number 7,069,343) in view of Beigi et al (U.S. Patent Number 6,363,056) hereinafter referred to as Beigi further in view of Dowling (US Patent Number 6,636,499).

As per claims 1 and 46: Goringe disclosed a method and a computer readable storage medium storing therein computer executable instructions comprising: receiving a routing communication in accordance with a routing protocol (Abstract, Fig. 23 # 2400-2412 and Column 3, Lines 19-46, topology discovery using a routing information defined by a routing protocols), wherein the routing communication includes an identifier associated with the network device and an indicator that indicates the network device that sent the routing communication is capable of responding to performance probes used to monitor performance of a network (Column 3, Line 49 through Column 4, Lines 17; Column 5, Lines 21-36 and Column 6, Lines 4-25, during a OSPF discovery, a router that utilizes a routing protocol, the router identified by a unique identifier of routing protocols utilized, including a link utilized as a routing protocol identifier and routers and associated router interface addresses are identified during the discovery phases for performing data collection via collection agents. Since the discovery is broadcasting, routing information across the network using a routing protocols, the discovery process implies routers sending/acknowledging routing information along with their unique identifiers to indirectly indicate monitoring capability.

Further, Goringe disclosed identifying list of routers discovered via the discovery process using the routing protocol see Column 12, Lines 54-67); and sending a performance probe to the network device to collect network performance statistics (Column 5, Lines 9-64, characteristics of network devices selected information is collected via data collection agents/probes deployed on the monitorable network devices).

Goringe substantially disclosed the invention as claimed. However, Goringe does not explicitly teach the routing information to include an indicator that indicates that a network device that sent the routing information is capable of responding to performance probes used to monitor the network and sending a performance probe to a network device that identified itself as compatible to respond to a network performance monitoring to collect network performance statistics. However, as evidenced by the teachings of Beigi, sending a performance probe to a network device to collect network performance statistics was known in the art at the time the invention was made (see Beigi, Abstract, Fig. 2 # 217, Fig. 4 # 405 →409, Fig. 8, # 805→809, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8). Furthermore, it was known in the art to for a routing information to include an indicator that indicates that a network device that sent the routing information is capable of responding to performance probes used to monitor the network and sending a performance probe to a network device that identified itself as compatible to respond to a network performance monitoring to collect network performance statistics was known in the art at the time the invention was made (For example see Dowling Abstract, Column 6, Line 66 through Column 7, Line 18; see Fig. 6, Column 8, Line 50 through Column 9, Line 57 and Column 10, Line 60 through Column 11, Line 17). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Beigi related to generating and sending probes

to a network communication device to collect network performance statistics and the teachings of Dowling related to broadcasting capability information of network devices and sending a performance probe to the identified device and have modified the teachings of Goringe in order to enable an automatic discovery of network devices and facilitate network management (see Dowling Column 6, Lines 50-64 and Column 11, Lines 9-17) and to "proactively monitor the delays between two access points belonging to a customer to verify if the delays exceed the desired bounds", by performing "a continuous monitoring of network performance" to "determine the level of service provided and/or to determine if there are any problems between two network access points" (Beigi, Column 2, Lines 9-17).

As per claim 2: Goringe further disclosed that the receiving a routing communication includes receiving a plurality of routing communications that each identify respective network devices that are capable of responding to performance probes and further comprising dynamically generating data to identify the network devices that are capable of responding to performance probes in response to the routing communications (Column 3, Lines 19-46, Column 5, Lines 9-64 and Column 11, Line 39 through Column 12, Line 10).

As per claim 3: Goringe disclosed that the routing communication includes routing information describing a topology of the network (Column 7, Lines 26-37, routing topology).

As per claims 4 and 47: Goringe disclosed generating an outbound routing communication in accordance with the routing protocol; and sending the outbound routing communication to the network device associated with the identifier via the routing protocol, wherein the outbound routing communication identifies at least the sending network device as a supporter of performance monitoring (Column 3, Line 19 through Column 4, Lines 17).

As per claim 6: Goringe disclosed that sending the performance probe comprises sending a plurality of performance probes (Column 3, Lines 42-66).

As per claim 7: Goringe disclosed that each of the performance probes is addressed to a common destination network device (Column 3, Lines 42-66 and Column 12, Lines 4-10).

As per claims 5 and 48: generating the performance probe to include a timestamp that indicates a time at which the probe was sent (Beigi, Column 7, Lines 22-27 and Column 8, Lines 30-35, & Lines 50-56).

As per claim 8: The already combined teachings of Goringe Beigi and Dowling disclosed that each of the performance probes is associated with the same quality of service level (Beigi, Column 2, Lines 14-58).

As per claim 9: The already combined teachings of Goringe Beigi and Dowling disclosed that sending the plurality of performance probes comprises sending the plurality of performance probes at a periodic rate over an interval of time (Beigi, Column 6, Lines 9-13 and Column 10, Lines 56-63).

As per claim 10: sending a first performance probe having a first quality of service level to the network device; and sending a second performance probe having a second quality of service level to the network device (Beigi, Column 2, Lines 14-58 and Column 6, Lines 1-67).

As per claims 11 and 49: The already combined teachings of Goringe Beigi and Dowling disclosed receiving a response to the performance probe from the network device; adding timestamp to the response to indicate the time of reception of the response; and storing information contained in the response (Beigi, Column 7, Lines 26-35 and Column 8, Lines 30-56).

As per claims 12 and 50: The already combined teachings of Goringe Beigi and Dowling disclosed forwarding the stored information to a centralized computing device for computing comprehensive network performance statistics (Beigi, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8).

As per claim 13: The already combined teachings of Goringe Beigi and Dowling disclosed that computing the network performance statistics from the information contained in the response; and forwarding the network performance statistic to a centralized device for computing comprehensive network performance statistics (Beigi, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8).

As per claims 14 and 51: The already combined teachings of Goringe Beigi and Dowling disclosed receiving an inbound performance probe from the network device; and sending a response to the inbound performance probe to the network device, wherein the response to the performance probe includes the received performance probe and a timestamp indicating the time of reception of the inbound performance probe (Beigi, Column 7, Line 22 through Column 8, Line 56 and Column 9, Line 32 through Column 10, Line 15).

As per claim 21: The already combined teachings of Goringe Beigi and Dowling disclosed the performance monitoring manager generates a performance probe that includes a timestamp and sends the performance probe to the network device identified in the data structure to collect the network performance statistics (Beigi, Column 4, Lines 1-14, Column 6, Lines 39-63, Column 8, Lines 30-56, Column 10, Lines 10-17 and Column 11, Lines 4-8).

As per claim 22: The already combined teachings of Goringe Beigi and Dowling disclosed the performance monitoring manager sends each of performance probe to a same destination network device (Beigi Column 7, Lines 22-35 and Column 8, Lines 30-56).

As per claim 23: The already combined teachings of Goringe Beigi and Dowling disclosed each performance probe being associated with the same quality of service level (Beigi, Column 2, Lines 14-58).

As per claim 24: wherein the performance monitoring manager sends each performance probe at a periodic rate over an interval of time (Beigi, Column 6, Lines 9-13 and Column 10, Lines 56-63).

As per claim 25: The already combined teachings of Goringe Beigi and Dowling disclosed that the performance monitoring manager sends a first performance probe associated with a first quality of service level to the network device identified in the data structure and a second performance probe associated with a second quality of service level to the network device (Beigi, Column 2, Lines 14-58 and Column 6, Lines 1-67).

As per claim 26: The already combined teachings of Goringe Beigi and Dowling disclosed that the performance monitoring manager receives a response to each of the performance probes, adds a timestamp to each of the responses to indicate the time of reception of the responses, and stores information contained in the responses (Beigi, Column 7, Lines 26-35 and Column 8, Lines 30-56).

As per claim 27: The already combined teachings of Goringe Beigi and Dowling disclosed that the performance monitoring manager forwards the stored information to a centralized

computing device for computing comprehensive network performance statistics (Beigi, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8).

As per claim 28: The already combined teachings of Goringe Beigi and Dowling disclosed that the performance monitoring manager computes the network performance statistics from the information contained in the response and forwards the network performance statistics to a centralized device for computing comprehensive network performance statistics (Beigi, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8).

As per claim 29: The already combined teachings of Goringe Beigi and Dowling disclosed that the performance monitoring manager receives an inbound performance probe from the network device identified in the data structure and sends a response to the inbound performance probe, wherein the response includes the received performance probe and a timestamp indicating the time of reception of the inbound performance probe (Goringe, Column 7, Line 22 through Column 8, Line 56 and Column 9, Line 32 through Column 10, Line 15 and Beigi, Column 7, Lines 26-35 and Column 8, Lines 30-56)).

As per claim 32: The already combined teachings of Goringe Beigi and Dowling disclosed that a dedicated service card that implements the performance monitoring manager (Beigi, Fig. 9 # 907→911→913).

As per claim 15: Goringe disclosed that the network performance statistics includes at least one of network delay, network jitter, network throughput, network availability and network packet loss (Column 1, Line 46 through Column 2, Line 45, Goringe addressed plurality of network performance monitoring applications including OpenView ™, Netview ™ and other applications

which actually are mainly used to collect performance statistics to determine multiple network related problems over a monitored communication network).

As per claim 16: Goringe disclosed that the routing protocol comprises one of Border Gateway Protocol (BGP), Open Shortest Path First (OSPF), Intermediate System - Intermediate System (ISIS), and Routing Information Protocol (RIP) (See Column 14, Lines 41-46).

As per claim 20: Goringe substantially disclosed the invention as claimed. However, Goringe failed to explicitly describe the function of sending a performance probe to a network device to collect network performance statistics at the discovered network device. However, as evidenced by the teachings of Beigi, sending a performance probe to a network device to collect network performance statistics was known in the art at the time the invention was made (see Beigi, Abstract, Fig. 2 # 217, Fig. 4 # 405 →409, Fig. 8, # 805→809, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Beigi related to generating and sending probes to a network communication device to collect network performance statistics and have modified the teachings of Goringe in order to allow "proactively monitor the delays between two access points belonging to a customer to verify if the delays exceed the desired bounds", by performing "a continuous monitoring of network performance" to "determine the level of service provided and/or to determine if there are any problems between two network access points" (Beigi, Column 2, Lines 9-17.

As per claim 30: The already combined teachings of Goringe Beigi and Dowling disclosed a processor and wherein at least one of the routing communication manager and the performance

monitoring manager comprises a software process executing on the processor (Goringe Fig. 3 and Column 5, Lines 44-64).

As per claim 31: The already combined teachings of Goringe Beigi and Dowling disclosed that at least one of the routing communication manager and the performance monitoring manager are executed in hardware (Goringe, Figs 3-7, a routing agent according to plurality of routing protocols being executed on a communication device).

As per claim 35: Goringe disclosed a system comprising: at least one network device that receives routing communications in accordance with a routing protocol, wherein at least a portion of the routing communications include identifier associated with network devices that sent the routing communications and indicators that indicate that the network device associated with the indicators are capable of responding to performance probes used to monitor performance of a network, wherein the network device sends performance probes to the network devices associated with the identifiers to collect network performance information (Abstract, Fig. 23 # 2400-2412, Column 3, Line 19 through Column 4, Lines 1, an apparatus utilized for topology discovery using a routing information defined by a routing protocols and in Column 3, Line 49 through Column 4, Lines 17; Column 5, Lines 21-36 and Column 6, Lines 4-25, during a OSPF discovery, a router that utilizes a routing protocol, the router identified by a unique identifier of routing protocols utilized, including a link utilized as a routing protocol identifier and routers and associated router interface addresses are identified during the discovery phases for performing data collection via collection agents. Since the discovery is broadcasting, routing information across the network using a routing protocols, the discovery process implies routers sending/acknowledging routing information along with their unique identifiers to indirectly indicate monitoring capability); and a statistical computing device that

aggregates performance information from the network devices and computes collective network performance information for the network devices based on the aggregated performance information (Column 5, Lines 9-64, characteristics of network devices and selected information is collected via data collection agents/probes deployed on the monitorable network devices). Goringe substantially disclosed the invention as claimed. Goringe taught the use of MIB deployed on each of the discovered communication devices where performance information is collected with SNMP probes/agents. Given the teachings of Goringe and the conventional performance monitoring of a communication network commonly involves centralized devices that aggregate the collected performance statistics collected by each probe/agent for purposes of generating the overall statistical performance status/fact or report of the monitored communication devices over the monitored network.

Nevertheless, Goringe was silent about sending performance probes to the network devices associated with the identifiers to collect network performance information and statistical computing device that aggregates performance information from the network devices and computes collective network performance information for the network devices based on the aggregated performance information. However, as evidenced by the teachings of Beigi, sending a performance probe to a network device to collect network performance statistics was known in the art at the time the invention was made (see Beigi, Abstract, Fig. 2 # 217, Fig. 4 # 405 →409, Fig. 8, # 805→809, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8) furthermore, a statistical computing device that aggregates performance information from the network devices and computes collective network performance information for the network devices based on the aggregated performance information is disclosed (see Beigi, Abstract, Column 2, Lines

33-58, Column 3, Line 49 through Column 4, Line 22, Column 10, Lines 10-17 and Column 11, Lines 4-8) Column 2, Lines 33-58, Column 10, Lines 10-17 and Column 11, Lines 4-8). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Beigi related to generating and sending probes to a network communication device to collect network performance statistics, which correlates the collected performance at a centralized device and have modified the teachings of Goringe in order to allow "proactively monitor the delays between two access points belonging to a customer to verify if the delays exceed the desired bounds", by performing "a continuous monitoring of network performance" to "determine the level of service provided and/or to determine if there are any problems between two network access points" (Beigi, Column 2, Lines 9-17).

As per claims 36 and 37: Goringe substantially disclosed the invention as claimed. However, Goringe was displaying the collective network performance statistics to a user in real-time. However, it should be appreciated the main purpose of collecting performance information of communication devices over the network is to present such findings to a user/administrator. Nevertheless, even if Goringe did not explicitly mention the function of displaying the statistics to a user in real time, such a feature was commonly known in the art at the time of the invention (For example, see cited art, U.S. Patent Number 6269401 issued to Fletcher et al., Abstract, *"…a computer system of a communication network measures and time-stamps network performance statistics and stores them in a memory unit within the computer system. The computer system also measures and time-stamps system performance statistics and system parameters and stores them in the memory unit within the computer system. The computer system reports the network performance statistics and the system information to a central computer system at specified time intervals. The central computer system correlates the network performance statistics and the system information for a specified time period based on the time-stamping and stores the network performance statistics and the system information in a memory unit*

within the computer system. The central computer system displays the correlated network performance statistics and system information to a user in response to the identification of a perturbation in the communication network, where the correlated network performance statistics and system information are displayed for a time interval contemporaneous with the perturbation, so that the user can integrally analyze the information." furthermore, see Fletcher, Column 3, Lines 2-63). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Fletcher and have modified the teachings of Goringe "enables the network manager to integrally view corresponding network performance statistics and system information for a selected time interval, or for the time interval corresponding to the identification of a perturbation in the communication network" (see Fletcher, Column 25, Lines 17-21).

As per claim 39: wherein each of the network devices exchange the routing communication via one of Border Gateway Protocol (BGP), Open Shortest Path First (OSPF), and Intermediate System - Intermediate System (ISIS) (See Goringe, Column 14, Lines 41-46).

As per claim 40: The already combined teachings of Goringe Beigi and Dowling disclosed that each of the network devices collect performance information by sending performance probes to at least a portion of the set of network devices, receiving responses to the performance probes, and adding timestamps to the responses to indicate the time of reception of the responses (Beigi, Column 7, Lines 26-35 and Column 8, Lines 30-56).

As per claim 41: Goringe disclosed a network device (Fig. 3 # 300) comprising: a routing communication manager that receives routing communications in accordance with a routing protocol, wherein at least a portion of routing communications include identifiers associated with the network devices that sent the routing communications and indicators that indicate the network

device associated with the indicators are capable of responding to performance probes used to monitor performance of a network (agents # 308, 310 # 316 of Fig. 3, Fig. 23 # 2400-2412 and Column 3, Lines 19-46, Discovery agents performing topology discovery using a routing information defined by plurality of routing protocols and in Column 3, Line 49 through Column 4, Lines 17; Column 5, Lines 21-36 and Column 6, Lines 4-25, during a OSPF discovery, a router that utilizes a routing protocol, the router identified by a unique identifier of routing protocols utilized, including a link utilized as a routing protocol identifier and routers and associated router interface addresses are identified during the discovery phases for performing data collection via collection agents. Since the discovery is broadcasting, routing information across the network using a routing protocols, the discovery process implies routers sending/acknowledging routing information along with their unique identifiers to indirectly indicate monitoring capability); and a performance monitoring service card that manages performance sessions with the network devices o (Column 3, Line 19 through Column 4, Line 17 and Column 5, Line 9 through Column 6, Line 31, performance monitoring using SNMP sessions in accordance with device discovery utilizing a routing protocols and performance collecting using probes/agents over the discovered devices over the network).

However, Goringe failed to explicitly describe the function of sending a performance probe to a network device to collect network performance statistics. However, as evidenced by the teachings of Beigi, sending a performance probe to a network device to collect network performance statistics was known in the art at the time the invention was made (see Beigi, Abstract, Fig. 2 # 217, Fig. 4 # 405 →409, Fig. 8, # 805→809, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Beigi related to generating and sending probes to a network communication device to

collect network performance statistics and have modified the teachings of Goringe in order to allow "proactively monitor the delays between two access points belonging to a customer to verify if the delays exceed the desired bounds", by performing "a continuous monitoring of network performance" to "determine the level of service provided and/or to determine if there are any problems between two network access points" (Beigi, Column 2, Lines 9-17).

As per claim 42: Goringe substantially disclosed the invention as recite4d in claim 41 above. However, Goringe was silent about "sending the performance probes to the network devices of the community to collect network performance statistics, wherein each of the performance probes include a timestamp indicating a time at which the respective one of the performance probes was sent". However, as evidenced by the teachings of Beigi, sending the performance probes to the network devices of the community to collect network performance statistics, wherein each of the performance probes include a timestamp indicating a time at which the respective one of the performance probes was sent was known in the art at the time the invention was made (see Beigi, Abstract, Fig. 2 # 217, Fig. 4 # 405 →409, Fig. 8, # 805→809, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 10, Lines 10-17 and Column 11, Lines 4-8). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Beigi related to generating and sending probes to a network communication device to collect network performance statistics and have modified the teachings of Goringe in order to allow "proactively monitor the delays between two access points belonging to a customer to verify if the delays exceed the desired bounds", by performing "a continuous monitoring of network performance" to "determine the level of service provided and/or to

determine if there are any problems between two network access points" (Beigi, Column 2, Lines 9-17.

As per claim 43: The already combined teachings of Goringe Beigi and Dowling disclosed that the performance monitoring service card receives a response to the performance probe from the network device, adds a timestamp to the response to indicate the time of reception of the response, and stores information contained in the response (Beigi, Column 2, Lines 33-58, Column 4, Lines 1-22, Column 7, Lines 26-35 and Column 8, Lines 30-56, Column 10, Lines 10-17 and Column 11, Lines 4-8).

As per claim 44: The already combined teachings of Goringe Beigi and Dowling disclosed that the performance monitoring service card receives an inbound performance probe from the network device and sends a response to the inbound performance probe, wherein the response to the performance probe includes the received performance probe and a timestamp indicating the time of reception of the inbound performance probe (Goringe, Column 3, Line 19 through Column 4, Lines 17 and Beigi, Column 7, Lines 26-35 and Column 8, Lines 30-56).

As per claim 45: wherein the routing protocol comprises one of Border Gateway Protocol (BGP), Open Shortest Path First (OSPF), and Intermediate System - Intermediate System (ISIS) (See Goringe, Column 14, Lines 41-46).

As per claim 52, Goringe disclosed, wherein receiving a routing communication comprises receiving a routing communication in. accordance with a routing protocol that includes a uniquely defined, routing protocol attribute that indicates the network device that sent the routing communication is capable of responding to performance probes (Column 3, Line 49 through Column 4, Lines 17; Column 5, Lines 21-36 and Column 6, Lines 4-25, during a OSPF discovery, a

router that utilizes a routing protocol, the router identified by a unique identifier of routing protocols utilized, including a link utilized as a routing protocol identifier and routers and associated router interface addresses are identified during the discovery phases for performing data collection via collection agents. Since the discovery is broadcasting, routing information across the network using a routing protocols, the discovery process implies routers sending/acknowledging routing information along with their unique identifiers to indirectly indicate their monitoring capability).

6. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over the already combined teachings of Goringe Beigi and Dowling as applied in claim 1 above and further in view of Martin (U.S. Patent Number 6,744,739).

As per claim 53, Goringe disclosed, receiving a routing communication comprises receiving a routing communication in accordance with a routing protocol that includes a uniquely defined BGP community attribute that indicates the network device that sent the routing communication is capable of responding to performance probes (This claim is rejected with the same rationale claim 52 is rejected above. Furthermore, Goringe suggested that multiple routing protocols could be utilized (see Goringe, Column 12, Line 54 through Column 13, Line 10). However, Goringe was silent about BGP community attributes. However, in these arts, Martin taught the use of a BGP in a discovery of network topology of network elements over a communication network (see Martin, Column 6, Lines 1-67). Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Martin related to BGP and have modified the already combined teachings of Goringe Beigi and Dowling, facilitating

the determination of network topology in order to determine the effects of routing protocols on a network topology (Martin, Column 3, Lines 8-15 and Column 6, Lines 1-21).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yemane Mesfin whose telephone number is (571)272-3927. The examiner can normally be reached on 9:30 AM -7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on 572-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Yemane Mesfin/
Examiner, Art Unit 2444

/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2444